DISCRETE - VERSION 1B (APRIL 1976) TEST DATA SET 1 - WITH PROPER UNIT WEIGHTING AND NORMALLY COMPREHENSIVE OUTPUT

LAST = F REGINT = T NOBASE = F NONNEG = F PRY = T PRPREL = F PRFINL = T PLOTRS = T REPEAT = F
NLAMMX = 4 IWT = 1 MTRY = 5

| TSTART | TEND | NT |
|---|---|---|
| .000000 | .450000+002 | 10 |
| .750000+002 | .945000+003 | 30 |

| T | Y | T | Y | T | Y | T | Y |
|---|---|---|---|---|---|---|---|
| 0.00000 | 3.17951+00 | 5.00000+000 | 2.72385+00 | 1.00000+001 | 2.38005+00 | 1.50000+001 | 2.17513+00 |
| 2.00000+001 | 1.96817+00 | 2.50000+001 | 1.83133+00 | 3.00000+001 | 1.71227+00 | 3.50000+001 | 1.66732+00 |
| 4.00000+001 | 1.60041+00 | 4.50000+001 | 1.52702+00 | 7.50000+001 | 1.28123+00 | 1.05000+002 | 1.03639+00 |
| 1.35000+002 | 9.11274-01 | 1.65000+002 | 7.93438-01 | 1.95000+002 | 7.04310-01 | 2.25000+002 | 6.49749-01 |
| 2.55000+002 | 5.95533-01 | 2.85000+002 | 4.99157-01 | 3.15000+002 | 4.61291-01 | 3.45000+002 | 3.51978-01 |
| 3.75000+002 | 3.81508-01 | 4.05000+002 | 3.28100-01 | 4.35000+002 | 2.73046-01 | 4.65000+002 | 2.63287-01 |
| 4.95000+002 | 2.66722-01 | 5.25000+002 | 2.48385-01 | 5.55000+002 | 1.77709-01 | 5.85000+002 | 1.33162-01 |
| 6.15000+002 | 1.55815-01 | 6.45000+002 | 8.17959-02 | 6.75000+002 | 1.03332-01 | 7.05000+002 | 1.61067-01 |
| 7.35000+002 | 7.68593-02 | 7.65000+002 | 1.19229-01 | 7.95000+002 | 6.39275-02 | 8.25000+002 | 5.87735-03 |
| 8.55000+002 | 1.99340-02 | 8.85000+002 | 2.95760-02 | 9.15000+002 | 0.00000 | 9.45000+002 | 2.92465-02 |

TEST DATA SET 1 - WITH PROPER UNIT WEIGHTING AND NORMALLY COMPREHENSIVE OUTPUT

FINAL ANALYSIS ASSUMING 1 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1.1790+000 | 0.00 | 1.35-001 | 2.36+000 | 8.22-003 | | | | | | | | |
| 1 | 1.1523+000 | 1.77+00 | 1.62-001 | 2.39+000 | 9.26-003 | | | | | | | | |
| 2 | 1.1517+000 | 1.99+00 | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |
| 3 | 1.1517+000 | 2.04+00 | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |
| 4 | 1.1517+000 | 2.04+00 | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |
| 5 | 1.1517+000 | 1.00+00* | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | ALP1 |
|---|---|---|
| ALP1 | .367 | |
| BASE | .531 | -.272 |

NPHI = 5.671-03

STANDARD DEVIATION OF FIT = SIGYY = 1.76432-01

| LAMBDA | +- | STD. ERROR | PERCENT | ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|---|---|---|---|
| 9.4412-003 | +- | 9.962-04 | 10.552 | 2.3956+000 | +- | 8.692-02 | 3.628 |
| BASELINE | | | | 1.6587-001 | +- | 4.089-02 | 24.650 |

TEST DATA SET 1 - WITH PROPER UNIT WEIGHTING AND NORMALLY COMPREHENSIVE OUTPUT

FINAL ANALYSIS ASSUMING 2 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6.5832-002 | 0.00 | 3.07-002 | 1.59+000 | 4.37-003 | 1.46+000 | 4.91-002 | | | | | | |
| 1 | 4.3062-002 | 1.09+00 | 4.39-003 | 1.66+000 | 4.15-003 | 1.48+000 | 5.81-002 | | | | | | |
| 2 | 4.2728-002 | 1.35+00 | 9.22-003 | 1.67+000 | 4.24-003 | 1.47+000 | 6.04-002 | | | | | | |
| 3 | 4.2728-002 | 1.36+00 | 9.37-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |
| 4 | 4.2728-002 | 1.06+00 | 9.38-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |
| 5 | 4.2728-002 | 1.36+00 | 9.38-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | LAM2 | ALP1 | ALP2 |
|---|---|---|---|---|
| LAM2 | .645 | | | |
| ALP1 | .623 | .827 | | |
| ALP2 | -.683 | -.482 | -.732 | |
| BASE | .843 | .404 | .229 | -.462 |

NPHI = 2.860-03

STANDARD DEVIATION OF FIT = SIGYY = 3.49398-02

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 4.2463-003 | +- | 2.080-04 | 4.898 |
| 6.0475-002 | +- | 4.050-03 | 6.697 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 1.6754+000 | +- | 3.920-02 | 2.340 |
| 1.4687+000 | +- | 4.854-02 | 3.305 |
| 9.3814-003 | +- | 1.660-02 | 176.980 |

TEST DATA SET 1 - WITH PROPER UNIT WEIGHTING AND NORMALLY COMPREHENSIVE OUTPUT

FINAL ANALYSIS ASSUMING 3 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2.5411-002 | 0.00 | -9.34-002 | 1.23+000 | 2.64-003 | 9.78-001 | 1.40-002 | 1.08+000 | 9.44-002 | | | | |
| 1 | 2.4474-002 | 9.18-01 | -8.57-002 | 1.23+000 | 2.71-003 | 8.96-001 | 1.33-002 | 1.14+000 | 8.45-002 | | | | |
| 2 | 2.4462-002 | 9.92-01 | -8.38-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 3 | 2.4462-002 | 9.46-01 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 4 | 2.4462-002 | 1.00+00 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 5 | 2.4462-002 | 9.57-01 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | LAM2 | LAM3 | ALP1 | ALP2 | ALP3 |
|---|---|---|---|---|---|---|
| LAM2 | .884 | | | | | |
| LAM3 | .480 | .708 | | | | |
| ALP1 | .947 | .963 | .573 | | | |
| ALP2 | -.915 | -.711 | -.147 | -.861 | | |
| ALP3 | -.653 | -.698 | -.842 | -.763 | .359 | |
| BASE | .971 | .726 | .403 | .850 | -.883 | -.555 |

NPHI = 5.394-02

STANDARD DEVIATION OF FIT = SIGYY = 2.72265-02

| LAMBDA | +- | STD. ERROR | PERCENT | ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|---|---|---|---|
| 2.7174-003 | +- | 6.823-04 | 25.106 | 1.2295+000 | +- | 2.030-01 | 16.508 |
| 1.3205-002 | +- | 4.732-03 | 35.834 | 8.9518-001 | +- | 1.827-01 | 20.413 |
| 8.4816-002 | +- | 1.016-02 | 11.978 | 1.1436+000 | +- | 1.207-01 | 10.556 |
| BASELINE | | | | -8.3896-002 | +- | 5.747-02 | 68.499 |

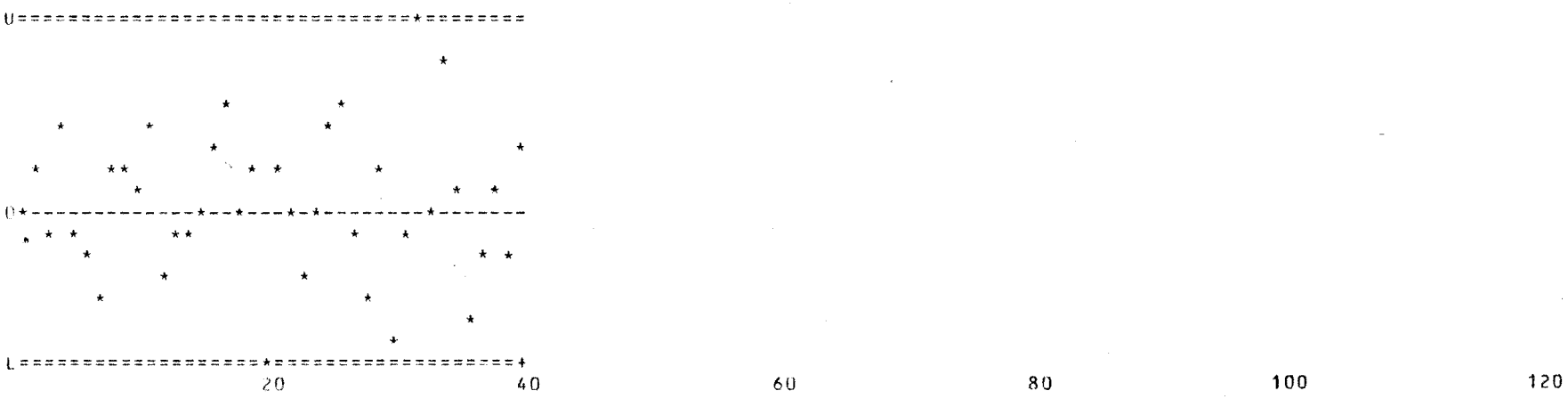
TEST DATA SET 1 - WITH PROPER UNIT WEIGHTING AND NORMALLY COMPREHENSIVE OUTPUT

FINAL ANALYSIS ASSUMING 4 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3.3705-002 | 0.00 | -6.72-002 | 1.46+000 | 3.16-003 | 1.39+000 | 3.16-002 | -3.96-001 | 6.33-002 | 8.14-001 | 1.27-001 | | |
| 1 | 2.8404-002 | 2.38-01 | -6.25-002 | 1.42+000 | 3.15-003 | 1.01+000 | 2.44-002 | -1.68-002 | 8.32-002 | 8.32-001 | 1.11-001 | | |
| 2 | 2.7175-002 | 2.57-01* | -6.21-002 | 1.40+000 | 3.12-003 | 9.38-001 | 2.19-002 | 6.53-001 | 1.13-001 | 2.57-001 | 7.80-002 | | |
| 3 | 2.6264-002 | 2.31-01 | -6.25-002 | 1.39+000 | 3.10-003 | 9.28-001 | 2.08-002 | -1.34-001 | 8.69-002 | 1.07+000 | 9.85-002 | | |
| 4 | 2.6212-002 | 2.78-02 | -6.25-002 | 1.39+000 | 3.10-003 | 9.29-001 | 2.07-002 | 2.43+000 | 9.41-002 | -1.50+000 | 9.05-002 | | |
| 5 | 2.6205-002 | 2.85-03 | -6.25-002 | 1.39+000 | 3.10-003 | 9.29-001 | 2.07-002 | -5.43+000 | 9.16-002 | 6.36+000 | 9.29-002 | | |
| 6 | 2.4583-002 | 6.12-01 | -6.42-002 | 1.31+000 | 2.98-003 | 8.38-001 | 1.52-002 | -2.10+000 | 9.16-002* | 3.20+000 | 9.00-002 | | |
| 7 | 2.4603-002* | 3.41-03* | -6.43-002 | 1.31+000 | 2.98-003 | 8.37-001 | 1.52-002 | 9.78-001 | 8.59-002 | 1.27-001 | 9.57-002 | | |
| 8 | 2.4589-002 | 1.40-02 | -6.43-002 | 1.31+000 | 2.98-003 | 8.39-001 | 1.53-002 | 2.50+000 | 8.96-002 | -1.40+000 | 9.16-002 | | |
| 9 | 2.4608-002* | 4.15-03* | -6.44-002 | 1.31+000 | 2.98-003 | 8.38-001 | 1.53-002 | 1.56-001 | 9.52-002 | 9.47-001 | 8.59-002 | | |
| 10 | 2.4596-002 | 1.28-02 | -6.44-002 | 1.31+000 | 2.98-003 | 8.40-001 | 1.53-002 | -1.22+000 | 9.14-002 | 2.32+000 | 8.94-002 | | |
| 11 | 2.4615-002* | 4.05-03* | -6.44-002 | 1.31+000 | 2.98-003 | 8.39-001 | 1.54-002 | 9.00-001 | 8.57-002 | 2.01-001 | 9.50-002 | | |
| 12 | 2.4602-002 | 1.27-02 | -6.44-002 | 1.31+000 | 2.98-003 | 8.41-001 | 1.54-002 | 2.05+000 | 8.92-002 | -9.54-001 | 9.12-002 | | |
| 13 | 2.4621-002* | 4.15-03* | -6.45-002 | 1.31+000 | 2.98-003 | 8.40-001 | 1.54-002 | 2.42-001 | 9.48-002 | 8.57-001 | 8.55-002 | | |
| 14 | 2.4609-002 | 1.24-02 | -6.45-002 | 1.31+000 | 2.98-003 | 8.42-001 | 1.55-002 | -7.32-001 | 9.10-002 | 1.83+000 | 8.90-002 | | |
| 15 | 2.4629-002* | 4.17-03* | -6.45-002 | 1.31+000 | 2.98-003 | 8.41-001 | 1.55-002 | 8.12-001 | 8.53-002 | 2.85-001 | 9.45-002 | | |
| 16 | 2.4617-002 | 1.22-02 | -6.46-002 | 1.31+000 | 2.98-003 | 8.43-001 | 1.55-002 | 1.61+000 | 8.87-002 | -5.13-001 | 9.08-002 | | |
| 17 | 2.4636-002* | 4.20-03* | -6.46-002 | 1.31+000 | 2.98-003 | 8.42-001 | 1.55-002 | 3.29-001 | 9.43-002 | 7.67-001 | 8.51-002 | | |
| 18 | 2.4624-002 | 1.20-02 | -6.46-002 | 1.31+000 | 2.98-003 | 8.43-001 | 1.56-002 | -3.03-001 | 9.06-002 | 1.40+000 | 8.85-002 | | |
| 19 | 2.4644-002* | 4.22-03* | -6.47-002 | 1.31+000 | 2.98-003 | 8.43-001 | 1.56-002 | 7.21-001 | 8.49-002 | 3.72-001 | 9.41-002 | | |
| 20 | 2.4632-002 | 1.19-02 | -6.47-002 | 1.31+000 | 2.98-003 | 8.44-001 | 1.57-002 | 1.19+000 | 8.83-002 | -9.72-002 | 9.03-002 | | |
| 21 | 2.4652-002* | 4.22-03* | -6.47-002 | 1.32+000 | 2.98-003 | 8.44-001 | 1.57-002 | 4.16-001 | 9.38-002 | 6.75-001 | 8.47-002 | | |
| 22 | 2.4640-002 | 1.17-02 | -6.47-002 | 1.32+000 | 2.98-003 | 8.45-001 | 1.57-002 | 1.05-001 | 9.01-002 | 9.84-001 | 8.81-002 | | |
| 23 | 2.4651-002* | 6.93-04 | -6.44-002 | 1.31+000 | 2.98-003 | 8.52-001 | 1.57-002 | 1.09+000 | 8.92-002 | 0.00 | 8.90-002 | | |
| 24 | 2.4483-002 | 7.50-01 | -7.58-002 | 1.25+000 | 2.81-003 | 8.68-001 | 1.36-002 | 1.21+000 | 8.50-002 | -6.87-002 | 8.90-002* | | |
| 25 | 2.4487-002* | 1.00-02* | -7.57-002 | 1.25+000 | 2.81-003 | 8.68-001 | 1.36-002 | 2.24-001 | 9.04-002 | 9.17-001 | 8.35-002 | | |
| 26 | 2.4485-002 | 2.00-02* | -7.55-002 | 1.25+000 | 2.82-003 | 8.68-001 | 1.37-002 | 9.17-001 | 8.40-002 | 2.20-001 | 8.98-002 | | |
| 27 | 2.4480-002 | 1.00-02* | -7.54-002 | 1.26+000 | 2.82-003 | 8.68-001 | 1.37-002 | -5.85-001 | 8.76-002 | 1.72+000 | 8.60-002 | | |
| 28 | 2.4494-002* | 4.04-03* | -7.54-002 | 1.26+000 | 2.82-003 | 8.67-001 | 1.38-002 | 7.59-001 | 8.22-002 | 3.78-001 | 9.14-002 | | |
| 29 | 2.4484-002 | 1.00-02* | -7.53-002 | 1.26+000 | 2.82-003 | 8.68-001 | 1.38-002 | 9.26-001 | 8.45-002 | 2.08-001 | 8.90-002 | | |
| 30 | 2.4486-002* | 1.00-02* | -7.52-002 | 1.26+000 | 2.83-003 | 8.68-001 | 1.39-002 | 3.06-001 | 8.94-002 | 8.27-001 | 8.40-002 | | |
| 31 | 2.4481-002 | 6.11-03 | -7.51-002 | 1.26+000 | 2.83-003 | 8.68-001 | 1.39-002 | -2.65+000 | 8.68-002 | 3.78+000 | 8.64-002 | | |
| 32 | 2.4481-002* | 7.34-05 | -7.51-002 | 1.26+000 | 2.83-003 | 8.68-001 | 1.39-002 | 3.88+000 | 8.64-002 | -2.74+000 | 8.68-002 | | |
| 33 | 2.4482-002* | 7.04-05 | -7.51-002 | 1.26+000 | 2.83-003 | 8.68-001 | 1.39-002 | -2.72+000 | 8.68-002 | 3.86+000 | 8.64-002 | | |
| 34 | 2.4482-002* | 7.09-05 | -7.51-002 | 1.26+000 | 2.83-003 | 8.68-001 | 1.39-002 | 3.86+000 | 8.64-002 | -2.73+000 | 8.68-002 | | |

SINGULARITY IN INVERTING FULL LEAST SQUARES MATRIX - NO CORRELATIONS CALCULATED. **********

PLOT OF RESIDUALS - FOR BEST SOLUTION. MAX RESIDUAL=U= 6.4-002 MIN RESIDUAL=L=-5.5-002



DISCRETE - VERSION 1B (APRIL 1976) TEST DATA SET 1 - WITH PROPER UNIT WEIGHTING AND NORMALLY COMPREHENSIVE OUTPUT

BEST SOLUTION 3 COMPONENTS

| ALPHA | +- STD ERR | PERCENT | LAMBDA | +- STD ERR | PERCENT | STARTING LAMBDA (FROM FIT TO TRANSFORMS - 1 TRIES) |
|---|---|---|---|---|---|---|
| 1.229+00 | +- 2.0-01 | 16.508 | 2.717-03 | +- 6.8-04 | 25.106 | 2.640-03 |
| 8.952-01 | +- 1.8-01 | 20.413 | 1.320-02 | +- 4.7-03 | 35.834 | 1.403-02 |
| 1.144+00 | +- 1.2-01 | 10.556 | 8.482-02 | +- 1.0-02 | 11.978 | 9.441-02 |
| -8.390-02 | +- 5.7-02 | 68.499 | 0.000 | +- 0.0 | .000 | |

APPROXIMATE PROBABILITY THAT THIS SOLUTION IS REALLY BETTER THAN THE SECOND BEST SOLUTION = * PNG(2/3) = 1.000 *

ITERATIONS IN FIT = 5 STD. DEV. OF FIT = 2.7227-02 SIGNAL/NOISE RATIO OF FIT = 117.
LAMBDA HELD BETWEEN 2.11-04 AND 4.16-01 NPHI = 5.39-02

| LAG | K = 1 | K = 2 | K = 3 | K = 4 | K = 5 | |
|---|---|---|---|---|---|---|
| PROB. RESIDUALS UNCORRELATED | .709 | .534 | .532 | .003 | .387 | WEIGHTED AVERAGE = * PUNC = .539 * |

SECOND BEST SOLUTION 2 COMPONENTS

| ALPHA | +- STD ERR | PERCENT | LAMBDA | +- STD ERR | PERCENT | STARTING LAMBDA (FROM FIT TO TRANSFORMS - 1 TRIES) |
|---|---|---|---|---|---|---|
| 1.675+00 | +- 3.9-02 | 2.340 | 4.246-03 | +- 2.1-04 | 4.898 | 4.367-03 |
| 1.469+00 | +- 4.9-02 | 3.305 | 6.047-02 | +- 4.0-03 | 6.697 | 4.911-02 |
| 9.381-03 | +- 1.7-02 | 176.980 | 0.000 | +- 0.0 | .000 | |

PNG(2/3) = 1.000 NPHI = 2.86-03 (UNCORRECTED PNG WOULD BE 1.000)
ITERATIONS IN FIT = 5 STD. DEV. OF FIT = 3.4940-02 SIGNAL/NOISE RATIO OF FIT = 91.

| LAG | K = 1 | K = 2 | K = 3 | K = 4 | K = 5 | |
|---|---|---|---|---|---|---|
| PROB. RESIDUALS UNCORRELATED | .046 | .436 | .948 | .029 | .115 | WEIGHTED AVERAGE = * PUNC = .267 * |

THIRD BEST SOLUTION 1 COMPONENTS

| ALPHA | +- STD ERR | PERCENT | LAMBDA | +- STD ERR | PERCENT | STARTING LAMBDA (FROM FIT TO TRANSFORMS - 1 TRIES) |
|---|---|---|---|---|---|---|
| 2.396+00 | +- 8.7-02 | 3.628 | 9.441-03 | +- 1.0-03 | 10.552 | 8.221-03 |
| 1.659-01 | +- 4.1-02 | 24.650 | 0.000 | +- 0.0 | .000 | |

PNG(1/3) = 1.000 NPHI = 5.67-03 (UNCORRECTED PNG WOULD BE 1.000)
ITERATIONS IN FIT = 5 STD. DEV. OF FIT = 1.7643-01 SIGNAL/NOISE RATIO OF FIT = 18.

| LAG | K = 1 | K = 2 | K = 3 | K = 4 | K = 5 | |
|---|---|---|---|---|---|---|
| PROB. RESIDUALS UNCORRELATED | .000 | .000 | .012 | .367 | .794 | WEIGHTED AVERAGE = * PUNC = .111 * |

DISCRETE - VERSION 18 (APRIL 1976) TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

LAST = T REGINT = F NOBASE = F NONNEG = F PRY = T PRPREL = T PRFINL = T PLOTRS = T REPEAT = T
NLAMMX = 4 IWT =-3 MTRY = 5

| T | Y | T | Y | T | Y | T | Y |
|---|---|---|---|---|---|---|---|
| 0.00000 | 3.17951+00 | 5.00000+000 | 2.72385+00 | 1.00000+001 | 2.38005+00 | 1.50000+001 | 2.17513+00 |
| 2.00000+001 | 1.96817+00 | 2.50000+001 | 1.83133+00 | 3.00000+001 | 1.71227+00 | 3.50000+001 | 1.66732+00 |
| 4.00000+001 | 1.60041+00 | 4.50000+001 | 1.52702+00 | 7.50000+001 | 1.28123+00 | 1.05000+002 | 1.03639+00 |
| 1.35000+002 | 9.11274-01 | 1.65000+002 | 7.93438-01 | 1.95000+002 | 7.04310-01 | 2.25000+002 | 6.49749-01 |
| 2.55000+002 | 5.95533-01 | 2.85000+002 | 4.99157-01 | 3.15000+002 | 4.61291-01 | 3.45000+002 | 3.51978-01 |
| 3.75000+002 | 3.81508-01 | 4.05000+002 | 3.28100-01 | 4.35000+002 | 2.73046-01 | 4.65000+002 | 2.63287-01 |
| 4.95000+002 | 2.66722-01 | 5.25000+002 | 2.48385-01 | 5.55000+002 | 1.77709-01 | 5.85000+002 | 1.33162-01 |
| 6.15000+002 | 1.55815-01 | 6.45000+002 | 8.17959-02 | 6.75000+002 | 1.03332-01 | 7.05000+002 | 1.61067-01 |
| 7.35000+002 | 7.68593-02 | 7.65000+002 | 1.19229-01 | 7.95000+002 | 6.39275-02 | 8.25000+002 | 5.87735-03 |
| 8.55000+002 | 1.99340-02 | 8.85000+002 | 2.95760-02 | 9.15000+002 | 0.00000 | 9.45000+002 | 2.92465-02 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

PRELIMINARY ANALYSIS TO DETERMINE WEIGHTS
ANALYSIS ASSUMING 1 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1.6340+000 | 0.00 | 1.22-002 | 2.29+000 | 5.40-003 | | | | | | | | |
| 1 | 1.2020+000 | 1.36+00 | 1.24-001 | 2.35+000 | 7.83-003 | | | | | | | | |
| 2 | 1.1533+000 | 1.70+00 | 1.59-001 | 2.39+000 | 9.13-003 | | | | | | | | |
| 3 | 1.1517+000 | 1.96+00 | 1.66-001 | 2.40+000 | 9.43-003 | | | | | | | | |
| 4 | 1.1517+000 | 2.03+00 | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |
| 5 | 1.1517+000 | 2.04+00 | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |
| 6 | 1.1517+000 | 1.00-02* | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | ALP1 |
|---|---|---|
| ALP1 | .367 | |
| BASE | .531 | -.272 |

STANDARD DEVIATION OF FIT = SIGYY = 1.76432-01

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 9.4412-003 | +- | 9.962-04 | 10.552 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 2.3956+000 | +- | 8.692-02 | 3.628 |
| 1.6587-001 | +- | 4.089-02 | 24.650 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

PRELIMINARY ANALYSIS TO DETERMINE WEIGHTS
ANALYSIS ASSUMING 2 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 5.3846-001 | 0.00 | -1.56-001 | 9.85-001 | 1.83-003 | 1.86+000 | 1.59-002 | | | | | | |
| 1 | 3.1760-001 | 1.00+00* | 7.46-002 | 1.35+000 | 4.63-003 | 1.44+000 | 2.85-002 | | | | | | |
| 2 | 6.3857-002 | 1.14+00 | -6.25-002 | 1.53+000 | 3.29-003 | 1.63+000 | 4.57-002 | | | | | | |
| 3 | 4.5319-002 | 1.22+00 | 1.15-002 | 1.64+000 | 4.21-003 | 1.48+000 | 5.54-002 | | | | | | |
| 4 | 4.2767-002 | 1.14+00 | 7.12-003 | 1.67+000 | 4.21-003 | 1.48+000 | 5.97-002 | | | | | | |
| 5 | 4.2728-002 | 1.36+00 | 9.46-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |
| 6 | 4.2728-002 | 1.07+00 | 9.37-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |
| 7 | 4.2728-002 | 1.35+00 | 9.38-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |
| 8 | 4.2728-002 | 1.07+00 | 9.38-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | LAM2 | ALP1 | ALP2 |
|---|---|---|---|---|
| LAM2 | .645 | | | |
| ALP1 | .623 | .827 | | |
| ALP2 | -.683 | -.482 | -.732 | |
| BASE | .843 | .404 | .229 | -.462 |

STANDARD DEVIATION OF FIT = SIGYY = 3.49398-02

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 4.2463-003 | +- | 2.080-04 | 4.898 |
| 0.0475-002 | +- | 4.050-03 | 6.697 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 1.6754+000 | +- | 3.920-02 | 2.340 |
| 1.4687+000 | +- | 4.854-02 | 3.305 |
| 9.3814-003 | +- | 1.660-02 | 176.980 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

PRELIMINARY ANALYSIS TO DETERMINE WEIGHTS
ANALYSIS ASSUMING 3 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2.1455-001 | 0.00 | -4.79-001 | 1.22+000 | 1.07-003 | 4.06-001 | 5.40-003 | 1.77+000 | 2.74-002 | | | | |
| 1 | 1.4234-001 | 2.80-01 | -1.82+000 | 2.19+000 | 2.11-004 | 9.56-001 | 4.41-003 | 1.65+000 | 3.30-002 | | | | |
| 2 | 5.6960-002 | 1.05+00 | -2.33+000 | 2.82+000 | 2.11-004* | 1.20+000 | 6.69-003 | 1.40+000 | 5.09-002 | | | | |
| 3 | 2.6940-002 | 1.10+00 | -2.48-001 | 9.59-001 | 1.44-003 | 1.17+000 | 8.29-003 | 1.28+000 | 7.10-002 | | | | |
| 4 | 2.5334-002 | 4.27-01 | -1.27-001 | 1.05+000 | 2.18-003 | 1.00+000 | 9.71-003 | 1.25+000 | 7.55-002 | | | | |
| 5 | 2.4723-002 | 6.18-01 | -8.42-002 | 1.18+000 | 2.65-003 | 8.90-001 | 1.17-002 | 1.20+000 | 8.04-002 | | | | |
| 6 | 2.4467-002 | 1.00+00* | -8.05-002 | 1.24+000 | 2.75-003 | 8.84-001 | 1.33-002 | 1.14+000 | 8.47-002 | | | | |
| 7 | 2.4462-002 | 1.01+00 | -8.38-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 8 | 2.4462-002 | 9.55-01 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 9 | 2.4462-002 | 9.99-01 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 10 | 2.4462-002 | 9.59-01 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | LAM2 | LAM3 | ALP1 | ALP2 | ALP3 |
|---|---|---|---|---|---|---|
| LAM2 | .884 | | | | | |
| LAM3 | .480 | .708 | | | | |
| ALP1 | .947 | .963 | .573 | | | |
| ALP2 | -.915 | -.711 | -.147 | -.861 | | |
| ALP3 | -.653 | -.888 | -.842 | -.763 | .359 | |
| BASE | .971 | .786 | .403 | .850 | -.883 | -.555 |

STANDARD DEVIATION OF FIT = SIGYY = 2.72265-02

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 2.7174-003 | +- | 6.823-04 | 25.106 |
| 1.3205-002 | +- | 4.732-03 | 35.834 |
| 8.4816-002 | +- | 1.016-02 | 11.978 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 1.2295+000 | +- | 2.030-01 | 16.508 |
| 8.9518-001 | +- | 1.827-01 | 20.413 |
| 1.1436+000 | +- | 1.207-01 | 10.556 |
| -8.3896-002 | +- | 5.747-02 | 68.499 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

PRELIMINARY ANALYSIS TO DETERMINE WEIGHTS
ANALYSIS ASSUMING 4 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 8.7589-002 | 0.00 | 3.24-001 | -9.13-001 | 7.71-004 | 2.14+000 | 2.82-003 | -2.91-001 | 1.03-002 | 1.79+000 | 3.79-002 | | |
| 1 | 5.2776-002 | 3.08-01 | -7.90-001 | -4.42-001 | 5.23-003 | 9.52-001 | 2.11-004 | 1.83+000 | 4.50-003 | 1.54+000 | 4.80-002 | | |
| 2 | 5.1004-002 | 6.89-02 | 4.99-001 | 6.44-001 | 7.18-003 | -1.03+000 | 3.79-004 | 1.50+000 | 1.94-003 | 1.49+000 | 4.96-002 | | |
| 3 | 4.0842-002 | 2.77-01 | 1.47+001 | 8.96-001 | 8.12-003 | 2.74+001 | 3.79-004* | -4.12+001 | 2.11-004 | 1.39+000 | 5.58-002 | | |
| 4 | 2.6722-002 | 1.00+00* | 1.89+001 | 1.03+000 | 1.16-002 | 3.45+001 | 3.79-004* | -5.24+001 | 2.11-004* | 1.18+000 | 7.63-002 | | |
| 5 | 2.4751-002 | 1.00+00* | 1.40+001 | 1.15+000 | 1.04-002 | 2.66+001 | 3.79-004* | -3.97+001 | 2.11-004* | 1.19+000 | 8.26-002 | | |
| 6 | 2.4748-002 | 1.00+00* | 1.39+001 | 1.15+000 | 1.03-002 | 2.63+001 | 3.79-004* | -3.93+001 | 2.11-004* | 1.19+000 | 8.21-002 | | |
| 7 | 2.4748-002 | 1.07+00 | 1.38+001 | 1.15+000 | 1.03-002 | 2.63+001 | 3.79-004* | -3.93+001 | 2.11-004* | 1.19+000 | 8.21-002 | | |
| 8 | 2.4748-002 | 1.00+00 | 1.38+001 | 1.15+000 | 1.03-002 | 2.63+001 | 3.79-004* | -3.93+001 | 2.11-004* | 1.19+000 | 8.21-002 | | |
| 9 | 2.4748-002 | 1.07+00 | 1.38+001 | 1.15+000 | 1.03-002 | 2.63+001 | 3.79-004* | -3.93+001 | 2.11-004* | 1.19+000 | 8.21-002 | | |

PARAMETERS USED TO GENERATE WEIGHTS FOR TRANSFORMS

| LAMBDA | ALPHA |
|---|---|
| 2.717-03 | 1.229+00 |
| 1.320-02 | 8.952-01 |
| 8.482-02 | 1.144+00 |

ERRFIT (UNCERTAINTY TERM ADDED TO ABSOLUTE VALUES OF THEORETICAL CURVE) = 3.05-02

| MU | REAL AND IMAGINARY PARTS OF TRANSFORMS | |
|---|---|---|
| .000 | 2.756+001 | |
| 1.369 | -3.339+000 | 4.542+000 |
| 2.737 | -4.125+000 | -5.363+000 |
| 4.106 | -6.190-001 | 3.437+000 |
| 5.474 | -1.123+000 | 2.757-001 |

DELTA = 1.00+01

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

INITIAL ANALYSIS OF THE RAW DATA AND THEN THE TRANSFORMS - ASSUMING 1 COMPONENTS

FIT USING STARTING SET 1

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1.0999+000 | 0.00 | 2.91-002 | 2.16+000 | 5.40-003 | | | | | | | | |
| 1 | 9.0562-001 | 1.28+00 | -7.59-003 | 1.95+000 | 4.35-003 | | | | | | | | |
| 2 | 9.0286-001 | 1.20+00 | -3.02-003 | 1.97+000 | 4.45-003 | | | | | | | | |
| 3 | 9.0286-001 | 1.20+00 | -2.98-003 | 1.97+000 | 4.45-003 | | | | | | | | |
| 4 | 9.0286-001 | 1.20+00 | -2.98-003 | 1.97+000 | 4.45-003 | | | | | | | | |
| 5 | 9.0286-001 | 1.00+00* | -2.98-003 | 1.97+000 | 4.45-003 | | | | | | | | |

END OF FIT TO RAW DATA, START OF FIT TO TRANSFORMS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1.5579+000 | 0.00 | 1.85-002 | 1.82+000 | 4.45-003 | | | | | | | | |
| 1 | 1.4078-003 | 1.00+00* | 4.93-002 | 1.94+000 | 5.21-003 | | | | | | | | |
| 2 | 2.4579-009 | 1.00+00* | 5.01-002 | 1.95+000 | 5.24-003 | | | | | | | | |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

INITIAL ANALYSIS OF THE RAW DATA AND THEN THE TRANSFORMS - ASSUMING 2 COMPONENTS

FIT USING STARTING SET 1

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 7.8269-001 | 0.00 | -1.47-001 | 4.06-001 | 1.05-003 | 1.73+000 | 5.24-003 | | | | | | |
| 1 | 5.6497-001 | 1.29+00 | -2.58-001 | 8.91-001 | 1.30-003 | 1.63+000 | 8.91-003 | | | | | | |
| 2 | 5.4527-001 | 1.74-01 | -1.56-001 | 9.54-001 | 1.87-003 | 1.49+000 | 1.00-002 | | | | | | |
| 3 | 5.2165-001 | 2.92-01 | -9.64-002 | 1.11+000 | 2.48-003 | 1.33+000 | 1.21-002 | | | | | | |
| 4 | 4.8490-001 | 6.94-01 | -5.55-002 | 1.34+000 | 3.11-003 | 1.19+000 | 1.76-002 | | | | | | |
| 5 | 4.1369-001 | 1.31+00 | -6.04-002 | 1.40+000 | 3.12-003 | 1.47+000 | 2.94-002 | | | | | | |
| 6 | 4.0468-001 | 1.36+00 | -5.90-002 | 1.43+000 | 3.17-003 | 1.60+000 | 3.67-002 | | | | | | |
| 7 | 4.0447-001 | 1.47+00 | -5.67-002 | 1.44+000 | 3.21-003 | 1.60+000 | 3.81-002 | | | | | | |
| 8 | 4.0447-001 | 1.03+00 | -5.69-002 | 1.44+000 | 3.21-003 | 1.61+000 | 3.82-002 | | | | | | |
| 9 | 4.0447-001 | 1.41+00 | -5.69-002 | 1.44+000 | 3.21-003 | 1.61+000 | 3.82-002 | | | | | | |
| 10 | 4.0447-001 | 1.08+00 | -5.69-002 | 1.44+000 | 3.21-003 | 1.61+000 | 3.82-002 | | | | | | |

END OF FIT TO RAW DATA, START OF FIT TO TRANSFORMS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1.4661-001 | 0.00 | -5.22-002 | 1.42+000 | 3.21-003 | 1.60+000 | 3.82-002 | | | | | | |
| 1 | 4.1322-004 | 9.97-01 | -2.83-002 | 1.49+000 | 3.53-003 | 1.24+000 | 3.27-002 | | | | | | |
| 2 | 1.0495-007 | 1.00+00 | -2.90-002 | 1.48+000 | 3.52-003 | 1.23+000 | 3.22-002 | | | | | | |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

INITIAL ANALYSIS OF THE RAW DATA AND THEN THE TRANSFORMS - ASSUMING 3 COMPONENTS

FIT USING STARTING SET 1

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4.1791-001 | 0.00 | -4.14-002 | 1.59+000 | 3.52-003 | -3.42-001 | 1.06-002 | 1.70+000 | 3.22-002 | | | | |
| 1 | 3.9677-001 | 4.07-01 | -7.10-002 | 1.33+000 | 2.95-003 | 3.51-001 | 1.26-002 | 1.34+000 | 4.03-002 | | | | |
| 2 | 3.8740-001 | 4.10-01 | -8.23-002 | 1.21+000 | 2.72-003 | 5.65-001 | 9.71-003 | 1.34+000 | 4.91-002 | | | | |
| 3 | 3.8292-001 | 6.71-01 | -8.84-002 | 1.24+000 | 2.69-003 | 8.00-001 | 1.33-002 | 1.14+000 | 6.42-002 | | | | |
| 4 | 3.7950-001 | 1.00+00* | -9.62-002 | 1.17+000 | 2.55-003 | 9.15-001 | 1.17-002 | 1.19+000 | 8.07-002 | | | | |
| 5 | 3.7945-001 | 1.00+00* | -9.81-002 | 1.17+000 | 2.53-003 | 9.36-001 | 1.18-002 | 1.18+000 | 8.27-002 | | | | |
| 6 | 3.7945-001 | 1.02+00 | -9.80-002 | 1.17+000 | 2.53-003 | 9.36-001 | 1.18-002 | 1.18+000 | 8.28-002 | | | | |
| 7 | 3.7945-001 | 1.03+00 | -9.80-002 | 1.17+000 | 2.53-003 | 9.36-001 | 1.18-002 | 1.18+000 | 8.28-002 | | | | |
| 8 | 3.7945-001 | 1.02+00 | -9.80-002 | 1.17+000 | 2.53-003 | 9.36-001 | 1.18-002 | 1.18+000 | 8.28-002 | | | | |

END OF FIT TO RAW DATA, START OF FIT TO TRANSFORMS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 5.5139-003 | 0.00 | -9.76-002 | 1.17+000 | 2.53-003 | 9.44-001 | 1.18-002 | 1.17+000 | 8.28-002 | | | | |
| 1 | 5.1603-004 | 6.94-01 | -8.13-002 | 1.23+000 | 2.74-003 | 8.81-001 | 1.30-002 | 1.11+000 | 8.22-002 | | | | |
| 2 | 2.4460-005 | 1.00+00* | -7.74-002 | 1.25+000 | 2.80-003 | 8.77-001 | 1.38-002 | 1.07+000 | 8.29-002 | | | | |
| 3 | 3.7349-011 | 1.00+00 | -7.78-002 | 1.25+000 | 2.79-003 | 8.81-001 | 1.38-002 | 1.07+000 | 8.31-002 | | | | |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

INITIAL ANALYSIS OF THE RAW DATA AND THEN THE TRANSFORMS - ASSUMING 4 COMPONENTS

FIT USING STARTING SET 1

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3.8048-001 | 0.00 | -7.96-002 | 1.26+000 | 2.79-003 | 8.60-001 | 1.38-002 | -4.54-003 | 3.39-002 | 1.14+000 | 8.31-002 | | |
| 1 | 3.8009-001 | 2.55-01 | -8.49-002 | 1.22+000 | 2.70-003 | 7.80-001 | 1.19-002 | 2.79-001 | 3.82-002 | 9.86-001 | 8.92-002 | | |
| 2 | 3.7942-001 | 5.62-01 | -9.58-002 | 1.16+000 | 2.54-003 | 6.90-001 | 1.00-002 | 3.98-001 | 2.43-002 | 1.04+000 | 9.20-002 | | |
| 3 | 3.7935-001 | 1.92-01 | -9.64-002 | 1.16+000 | 2.54-003 | 7.96-001 | 1.09-002 | 3.21-001 | 3.06-002 | 1.01+000 | 9.45-002 | | |
| 4 | 3.7934-001 | 8.00-02* | -9.81-002 | 1.15+000 | 2.51-003 | 7.37-001 | 1.03-002 | 3.47-001 | 2.44-002 | 1.06+000 | 9.22-002 | | |
| 5 | 3.7932-001 | 9.63-02 | -9.82-002 | 1.15+000 | 2.52-003 | 7.90-001 | 1.07-002 | 3.13-001 | 2.82-002 | 1.03+000 | 9.35-002 | | |
| 6 | 3.7931-001 | 8.00-02* | -9.93-002 | 1.15+000 | 2.50-003 | 7.63-001 | 1.03-002 | 3.36-001 | 2.58-002 | 1.05+000 | 9.28-002 | | |

END OF FIT TO RAW DATA, START OF FIT TO TRANSFORMS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 5.6734-002 | 0.00 | -9.80-002 | 1.14+000 | 2.50-003 | 7.82-001 | 1.03-002 | 3.10-001 | 2.58-002 | 1.04+000 | 9.28-002 | | |
| 1 | 3.6324-002 | 1.32-02 | -1.00-001 | 1.12+000 | 2.46-003 | 7.28-001 | 9.70-003 | 3.64-001 | 2.22-002 | 1.06+000 | 9.24-002 | | |
| 2 | 3.5939-002 | 1.15-02 | -1.03-001 | 1.10+000 | 2.41-003 | 6.67-001 | 8.96-003 | 4.39-001 | 1.99-002 | 1.08+000 | 9.23-002 | | |
| 3 | 3.5627-002 | 1.08-02 | -1.06-001 | 1.07+000 | 2.35-003 | 6.13-001 | 8.11-003 | 5.24-001 | 1.83-002 | 1.09+000 | 9.24-002 | | |
| 4 | 3.5388-002 | 6.66-03 | -1.09-001 | 1.04+000 | 2.30-003 | 5.92-001 | 7.53-003 | 5.75-001 | 1.77-002 | 1.09+000 | 9.25-002 | | |
| 5 | 3.5199-002 | 5.19-03 | -1.12-001 | 1.01+000 | 2.25-003 | 5.86-001 | 7.06-003 | 6.11-001 | 1.73-002 | 1.09+000 | 9.26-002 | | |
| 6 | 3.5044-002 | 4.26-03 | -1.15-001 | 9.84-001 | 2.21-003 | 5.90-001 | 6.69-003 | 6.38-001 | 1.71-002 | 1.09+000 | 9.27-002 | | |

VARIANCE DID NOT SIGNIFICANTLY DECREASE IN THE LAST 4 TIMES. ***TOO SLOW***TOO SLOW***TOO SLOW***TOO SLOW***TOO SLOW***TOO SLOW

FIT USING STARTING SET 2

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3.8015-001 | 0.00 | -1.13-001 | 7.03-001 | 2.00-003 | 6.04-001 | 3.85-003 | 9.20-001 | 1.42-002 | 1.11+000 | 1.00-001 | | |
| 1 | 3.8005-001 | 1.00-02* | -1.00-001 | 1.01+000 | 2.40-003 | 2.78-001 | 4.63-003 | 9.27-001 | 1.43-002 | 1.10+000 | 1.00-001 | | |
| 2 | 3.8003-001 | 4.31-03 | -9.57-002 | 1.13+000 | 2.52-003 | 1.71-001 | 5.68-003 | 9.19-001 | 1.44-002 | 1.10+000 | 1.00-001 | | |
| 3 | 3.7999-001 | 2.51-02 | -9.33-002 | 1.18+000 | 2.58-003 | 1.50-001 | 7.24-003 | 8.89-001 | 1.46-002 | 1.10+000 | 9.97-002 | | |
| 4 | 3.7994-001 | 5.01-02 | -9.20-002 | 1.20+000 | 2.62-003 | 2.98-001 | 1.03-002 | 7.12-001 | 1.52-002 | 1.10+000 | 9.92-002 | | |
| 5 | 3.7990-001 | 3.67-02 | -9.24-002 | 1.20+000 | 2.62-003 | 5.10-001 | 1.15-002 | 4.98-001 | 1.61-002 | 1.10+000 | 9.89-002 | | |
| 6 | 3.7959-001 | 2.27-01 | -9.60-002 | 1.17+000 | 2.55-003 | 6.18-001 | 1.04-002 | 4.39-001 | 1.93-002 | 1.08+000 | 9.72-002 | | |
| 7 | 3.7954-001 | 8.44-02 | -9.64-002 | 1.17+000 | 2.55-003 | 7.33-001 | 1.10-002 | 3.27-001 | 2.19-002 | 1.07+000 | 9.71-002 | | |
| 8 | 3.7928-001 | 6.72-01 | -1.03-001 | 1.12+000 | 2.44-003 | 7.97-001 | 9.92-003 | 3.97-001 | 3.06-002 | 9.82-001 | 9.60-002 | | |
| 9 | 3.7927-001 | 8.00-02* | -1.04-001 | 1.12+000 | 2.43-003 | 7.80-001 | 9.72-003 | 3.94-001 | 2.83-002 | 1.01+000 | 9.45-002 | | |
| 10 | 3.7927-001 | 5.82-01 | -1.04-001 | 1.12+000 | 2.43-003 | 8.01-001 | 9.89-003 | 3.72-001 | 2.96-002 | 1.00+000 | 9.41-002 | | |
| 11 | 3.7927-001 | 7.05-02 | -1.04-001 | 1.11+000 | 2.42-003 | 7.92-001 | 9.78-003 | 3.73-001 | 2.84-002 | 1.02+000 | 9.35-002 | | |

END OF FIT TO RAW DATA, START OF FIT TO TRANSFORMS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3.2880-002 | 0.00 | -1.03-001 | 1.11+000 | 2.42-003 | 8.04-001 | 9.78-003 | 3.54-001 | 2.84-002 | 1.01+000 | 9.35-002 | | |
| 1 | 3.2225-002 | 1.89-02 | -1.07-001 | 1.09+000 | 2.37-003 | 7.65-001 | 9.13-003 | 3.89-001 | 2.41-002 | 1.04+000 | 9.26-002 | | |
| 2 | 3.1722-002 | 1.61-02 | -1.11-001 | 1.05+000 | 2.30-003 | 7.25-001 | 8.39-003 | 4.49-001 | 2.14-002 | 1.06+000 | 9.24-002 | | |
| 3 | 3.1333-002 | 1.36-02 | -1.16-001 | 1.01+000 | 2.23-003 | 6.99-001 | 7.65-003 | 5.14-001 | 1.99-002 | 1.07+000 | 9.25-002 | | |
| 4 | 3.1044-002 | 9.73-03 | -1.20-001 | 9.75-001 | 2.15-003 | 6.95-001 | 7.08-003 | 5.60-001 | 1.91-002 | 1.08+000 | 9.26-002 | | |
| 5 | 3.0820-002 | 6.92-03 | -1.24-001 | 9.41-001 | 2.08-003 | 7.03-001 | 6.68-003 | 5.91-001 | 1.86-002 | 1.08+000 | 9.28-002 | | |
| 6 | 3.0634-002 | 5.75-03 | -1.28-001 | 9.07-001 | 2.01-003 | 7.17-001 | 6.34-003 | 6.15-001 | 1.83-002 | 1.08+000 | 9.29-002 | | |
| 7 | 3.0476-002 | 4.96-03 | -1.33-001 | 8.74-001 | 1.95-003 | 7.36-001 | 6.06-003 | 6.34-001 | 1.81-002 | 1.08+000 | 9.30-002 | | |

VARIANCE DID NOT SIGNIFICANTLY DECREASE IN THE LAST 4 TIMES. ***TOO SLOW***TOO SLOW***TOO SLOW***TOO SLOW***TOO SLOW***TOO SLOW

FIT USING STARTING SET 3

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 6.4566-001 | 0.00 | -1.25+001 | 0.00 | 2.84-004 | 5.12+001 | 5.45-004 | -5.67+001 | 1.04-003 | 1.99+001 | 2.00-003 | | |
| 1 | 4.7490-001 | 1.78+00 | 1.16+000 | 0.00 | 2.84-004* | -4.79+000 | 5.45-004* | 4.59+000 | 1.04-003* | 1.52+000 | 1.49-002 | | |
| 2 | 4.5504-001 | 5.71-01 | -4.11-001 | 0.00 | 2.84-004* | 6.57-001 | 5.45-004* | 1.04+000 | 3.94-003 | 1.28+000 | 1.98-002 | | |
| 3 | 4.4144-001 | 1.98-01 | -7.84-001 | 1.00+000 | 2.84-004* | 0.00 | 2.11-004 | 1.13+000 | 4.06-003 | 1.28+000 | 2.25-002 | | |
| 4 | 3.8734-001 | 1.61+00 | 4.81-001 | 1.13+000 | 1.38-003 | -9.55-001 | 2.11-004* | 9.51-001 | 6.19-003 | 1.39+000 | 4.50-002 | | |
| 5 | 3.8673-001 | 5.08-02* | 2.14+000 | 2.54+000 | 7.94-004 | -4.06+000 | 2.11-004* | 1.01+000 | 6.20-003 | 1.39+000 | 4.59-002 | | |
| 6 | 3.8659-001 | 6.35-03* | 2.53+000 | 3.03+000 | 7.21-004 | -4.95+000 | 2.11-004* | 1.01+000 | 6.20-003 | 1.39+000 | 4.60-002 | | |
| 7 | 3.8136-001 | 6.24-01 | 5.60+000 | 5.41+000 | 7.21-004* | -1.02+001 | 2.11-004* | 1.00+000 | 9.57-003 | 1.22+000 | 5.89-002 | | |
| 8 | 3.8083-001 | 3.15-02* | 9.66+000 | 1.37+001 | 4.66-004 | -2.25+001 | 2.11-004* | 1.03+000 | 9.28-003 | 1.22+000 | 5.89-002 | | |
| 9 | 3.7749-001 | 1.05+00 | 9.53+000 | 1.35+001 | 4.66-004* | -2.23+001 | 2.11-004* | 1.14+000 | 9.75-003 | 1.21+000 | 7.60-002 | | |
| 10 | 3.7732-001 | 1.02+00 | 9.16+000 | 1.31+001 | 4.66-004* | -2.14+001 | 2.11-004* | 1.16+000 | 9.58-003 | 1.22+000 | 7.94-002 | | |
| 11 | 3.7732-001 | 1.01+00 | 9.18+000 | 1.31+001 | 4.66-004* | -2.15+001 | 2.11-004* | 1.16+000 | 9.60-003 | 1.22+000 | 7.96-002 | | |
| 12 | 3.7732-001 | 1.00+00 | 9.18+000 | 1.31+001 | 4.66-004* | -2.15+001 | 2.11-004* | 1.16+000 | 9.60-003 | 1.22+000 | 7.96-002 | | |
| 13 | 3.7732-001 | 1.00+00* | 9.18+000 | 1.31+001 | 4.66-004* | -2.15+001 | 2.11-004* | 1.16+000 | 9.60-003 | 1.22+000 | 7.96-002 | | |

FIT USING STARTING SET 4

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3.9301-001 | 0.00 | -2.65+000 | 4.43+000 | 2.84-004 | -2.10+000 | 1.04-003 | 1.90+000 | 3.85-003 | 1.53+000 | 5.21-002 | | |
| 1 | 3.8778-001 | 1.27-01 | 0.00 | 4.45+000 | 2.84-004* | -4.16+000 | 2.11-004 | 1.34+000 | 4.99-003 | 1.48+000 | 5.38-002 | | |
| 2 | 3.8748-001 | 5.65-01 | -9.73-001 | 1.27+000 | 2.84-004* | 0.00 | 2.11-004* | 1.37+000 | 5.19-003 | 1.44+000 | 5.45-002 | | |
| 3 | 3.8470-001 | 3.13-01 | -8.70-001 | 6.09-001 | 2.75-003 | 1.01+000 | 2.11-004* | 9.77-001 | 6.69-003 | 1.40+000 | 5.91-002 | | |
| 4 | 3.8447-001 | 3.39-02 | -2.53-001 | 2.36-001 | 2.21-003 | 5.78-001 | 9.84-004 | 1.16+000 | 6.21-003 | 1.40+000 | 5.92-002 | | |
| 5 | 3.8440-001 | 6.47-03 | -2.22-001 | -4.86-002 | 1.95-003 | 7.90-001 | 1.29-003 | 1.21+000 | 6.13-003 | 1.41+000 | 5.93-002 | | |
| 6 | 3.7939-001 | 4.40-01 | 1.51+000 | -2.48+000 | 2.11-004 | 1.80+000 | 1.29-003* | 1.02+000 | 8.73-003 | 1.28+000 | 6.53-002 | | |
| 7 | 3.7888-001 | 5.09-02* | 3.90+000 | -7.16+000 | 2.11-004* | 4.02+000 | 7.51-004 | 1.08+000 | 8.31-003 | 1.29+000 | 6.53-002 | | |
| 8 | 3.7862-001 | 2.32-02* | 7.12+000 | -1.65+001 | 2.11-004* | 1.02+001 | 4.81-004 | 1.11+000 | 8.15-003 | 1.29+000 | 6.52-002 | | |
| 9 | 3.7745-001 | 9.00-01 | 9.00+000 | -2.05+001 | 2.11-004* | 1.23+001 | 4.81-004* | 1.14+000 | 9.63-003 | 1.21+000 | 7.59-002 | | |
| 10 | 3.7734-001 | 1.03+00 | 8.83+000 | -2.02+001 | 2.11-004* | 1.22+001 | 4.81-004* | 1.16+000 | 9.60-003 | 1.22+000 | 7.95-002 | | |
| 11 | 3.7734-001 | 1.04+00 | 8.84+000 | -2.02+001 | 2.11-004* | 1.22+001 | 4.81-004* | 1.16+000 | 9.61-003 | 1.22+000 | 7.96-002 | | |
| 12 | 3.7734-001 | 9.74-01 | 8.84+000 | -2.02+001 | 2.11-004* | 1.22+001 | 4.81-004* | 1.16+000 | 9.61-003 | 1.22+000 | 7.96-002 | | |
| 13 | 3.7734-001 | 1.04+00 | 8.84+000 | -2.02+001 | 2.11-004* | 1.22+001 | 4.81-004* | 1.16+000 | 9.61-003 | 1.22+000 | 7.96-002 | | |

FIT USING STARTING SET 5

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 9.9563-001 | 0.00 | -2.12+000 | 2.74+000 | 2.84-004 | 6.20+000 | 2.72-002 | -8.45+000 | 5.21-002 | 5.07+000 | 1.00-001 | | |
| 1 | 3.8813-001 | 5.65-01 | 1.63+000 | 1.56+000 | 1.44-003 | -2.57+000 | 2.11-004 | 1.13+000 | 1.48-001 | 1.25+000 | 1.18-002 | | |
| 2 | 3.8549-001 | 1.47-01* | 2.35+000 | 2.30+000 | 1.22-003 | -3.74+000 | 2.11-004* | 1.14+000 | 1.36-001 | 1.25+000 | 1.15-002 | | |
| 3 | 3.8431-001 | 8.00-02* | 3.06+000 | 2.81+000 | 1.06-003 | -4.97+000 | 2.11-004* | 1.15+000 | 1.31-001 | 1.25+000 | 1.13-002 | | |
| 4 | 3.8324-001 | 8.00-02* | 4.21+000 | 3.84+000 | 8.73-004 | -7.18+000 | 2.11-004* | 1.16+000 | 1.26-001 | 1.26+000 | 1.11-002 | | |
| 5 | 3.8224-001 | 8.00-02* | 6.42+000 | 6.64+000 | 6.49-004 | -1.22+001 | 2.11-004* | 1.17+000 | 1.21-001 | 1.27+000 | 1.09-002 | | |
| 6 | 3.7792-001 | 9.44-01 | 6.63+000 | 6.79+000 | 6.49-004* | -1.26+001 | 2.11-004* | 1.18+000 | 7.82-002 | 1.13+000 | 1.03-002 | | |
| 7 | 3.7752-001 | 9.66-01 | 5.97+000 | 6.26+000 | 6.49-004* | -1.14+001 | 2.11-004* | 1.22+000 | 7.95-002 | 1.14+000 | 9.69-003 | | |
| 8 | 3.7728-001 | 2.97-02* | 1.00+001 | 1.60+001 | 4.30-004 | -2.52+001 | 2.11-004* | 1.22+000 | 7.90-002 | 1.16+000 | 9.49-003 | | |
| 9 | 3.7728-001 | 9.66-01 | 1.01+001 | 1.61+001 | 4.30-004* | -2.55+001 | 2.11-004* | 1.22+000 | 7.95-002 | 1.16+000 | 9.57-003 | | |
| 10 | 3.7728-001 | 1.04+00 | 1.01+001 | 1.61+001 | 4.30-004* | -2.55+001 | 2.11-004* | 1.22+000 | 7.96-002 | 1.16+000 | 9.58-003 | | |
| 11 | 3.7728-001 | 9.68-01 | 1.01+001 | 1.61+001 | 4.30-004* | -2.55+001 | 2.11-004* | 1.22+000 | 7.96-002 | 1.16+000 | 9.58-003 | | |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

PRELIMINARY ANALYSIS TO DETERMINE WEIGHTS
ANALYSIS ASSUMING 1 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2.0350+000 | 0.00 | -6.65-002 | 2.29+000 | 4.45-003 | | | | | | | | |
| 1 | 1.2618+000 | 1.29+00 | 1.02-001 | 2.33+000 | 7.18-003 | | | | | | | | |
| 2 | 1.1574+000 | 1.59+00 | 1.52-001 | 2.38+000 | 8.86-003 | | | | | | | | |
| 3 | 1.1518+000 | 1.90+00 | 1.65-001 | 2.39+000 | 9.40-003 | | | | | | | | |
| 4 | 1.1517+000 | 2.03+00 | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |
| 5 | 1.1517+000 | 2.04+00 | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |
| 6 | 1.1517+000 | 4.00+00 | 1.66-001 | 2.40+000 | 9.44-003 | | | | | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | ALP1 |
|---|---|---|
| ALP1 | .367 | |
| BASE | .531 | -.272 |

STANDARD DEVIATION OF FIT = SIGYY = 1.76432-01

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 9.4412-003 | +- | 9.962-04 | 10.552 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 2.3956+000 | +- | 8.692-02 | 3.628 |
| 1.6587-001 | +- | 4.089-02 | 24.650 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

PRELIMINARY ANALYSIS TO DETERMINE WEIGHTS
ANALYSIS ASSUMING 2 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 9.0627-002 | 0.00 | -5.54-002 | 1.43+000 | 3.21-003 | 1.65+000 | 3.82-002 | | | | | | |
| 1 | 5.1884-002 | 1.13+00 | 1.31-002 | 1.60+000 | 4.17-003 | 1.49+000 | 5.13-002 | | | | | | |
| 2 | 4.2909-002 | 1.13+00 | 5.93-003 | 1.66+000 | 4.18-003 | 1.48+000 | 5.87-002 | | | | | | |
| 3 | 4.2728-002 | 1.35+00 | 9.17-003 | 1.67+000 | 4.24-003 | 1.47+000 | 6.04-002 | | | | | | |
| 4 | 4.2728-002 | 1.25+00 | 9.38-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |
| 5 | 4.2728-002 | 1.14+00 | 9.38-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |
| 6 | 4.2728-002 | 1.25+00 | 9.38-003 | 1.68+000 | 4.25-003 | 1.47+000 | 6.05-002 | | | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | LAM2 | ALP1 | ALP2 |
|---|---|---|---|---|
| LAM2 | .645 | | | |
| ALP1 | .623 | .827 | | |
| ALP2 | -.683 | -.482 | -.732 | |
| BASE | .843 | .404 | .229 | -.462 |

STANDARD DEVIATION OF FIT = SIGYY = 3.49398-02

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 4.2463-003 | +- | 2.080-04 | 4.898 |
| 6.0475-002 | +- | 4.050-03 | 6.697 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 1.6754+000 | +- | 3.920-02 | 2.340 |
| 1.4687+000 | +- | 4.854-02 | 3.305 |
| 9.3815-003 | +- | 1.660-02 | 176.979 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

PRELIMINARY ANALYSIS TO DETERMINE WEIGHTS
ANALYSIS ASSUMING 3 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2.4532-002 | 0.00 | -9.77-002 | 1.17+000 | 2.53-003 | 9.39-001 | 1.18-002 | 1.18+000 | 8.28-002 | | | | |
| 1 | 2.4470-002 | 9.31-01 | -8.29-002 | 1.22+000 | 2.72-003 | 8.94-001 | 1.30-002 | 1.15+000 | 8.45-002 | | | | |
| 2 | 2.4462-002 | 1.00+00* | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 3 | 2.4462-002 | 9.46-01 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 4 | 2.4462-002 | 9.82-01 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |
| 5 | 2.4462-002 | 9.52-01 | -8.39-002 | 1.23+000 | 2.72-003 | 8.95-001 | 1.32-002 | 1.14+000 | 8.48-002 | | | | |

*

CORRELATION COEFFICIENTS

| | LAM1 | LAM2 | LAM3 | ALP1 | ALP2 | ALP3 |
|---|---|---|---|---|---|---|
| LAM2 | .884 | | | | | |
| LAM3 | .480 | .708 | | | | |
| ALP1 | .947 | .963 | .573 | | | |
| ALP2 | -.915 | -.711 | -.147 | -.861 | | |
| ALP3 | -.653 | -.888 | -.842 | -.763 | .359 | |
| BASE | .971 | .786 | .403 | .850 | -.883 | -.555 |

STANDARD DEVIATION OF FIT = SIGYY = 2.72265-02

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 2.7174-003 | +- | 6.823-04 | 25.106 |
| 1.3205-002 | +- | 4.732-03 | 35.834 |
| 8.4816-002 | +- | 1.016-02 | 11.978 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 1.2295+000 | +- | 2.030-01 | 16.508 |
| 8.9518-001 | +- | 1.827-01 | 20.413 |
| 1.1436+000 | +- | 1.207-01 | 10.556 |
| -8.3896-002 | +- | 5.747-02 | 68.499 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

PRELIMINARY ANALYSIS TO DETERMINE WEIGHTS
ANALYSIS ASSUMING 4 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 2.4851-002 | 0.00 | 1.01+001 | -2.54+001 | 2.11-004 | 1.61+001 | 4.30-004 | 1.16+000 | 9.58-003 | 1.22+000 | 7.96-002 | | |
| 1 | 2.4742-002 | 1.08+00 | 1.19+001 | -2.96+001 | 2.11-004* | 1.85+001 | 4.30-004* | 1.14+000 | 1.03-002 | 1.19+000 | 8.21-002 | | |
| 2 | 2.4742-002 | 1.07+00 | 1.19+001 | -2.96+001 | 2.11-004* | 1.85+001 | 4.30-004* | 1.14+000 | 1.03-002 | 1.19+000 | 8.21-002 | | |
| 3 | 2.4742-002 | 1.00+00 | 1.20+001 | -2.96+001 | 2.11-004* | 1.85+001 | 4.30-004* | 1.14+000 | 1.03-002 | 1.19+000 | 8.21-002 | | |
| 4 | 2.4742-002 | 1.06+00 | 1.20+001 | -2.96+001 | 2.11-004* | 1.85+001 | 4.30-004* | 1.14+000 | 1.03-002 | 1.19+000 | 8.21-002 | | |

*

PARAMETERS USED TO GENERATE WEIGHTS FOR RAW DATA

| LAMBDA | ALPHA |
|---|---|
| 2.717-03 | 1.229+00 |
| 1.320-02 | 8.952-01 |
| 8.482-02 | 1.144+00 |

ERRFIT (UNCERTAINTY TERM ADDED TO ABSOLUTE VALUES OF THEORETICAL CURVE) = 3.05-02

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

FINAL ANALYSIS ASSUMING 1 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 1.0415+000 | 0.00 | 2.47-002 | 2.13+000 | 5.24-003 | | | | | | | | |
| 1 | 9.0400-001 | 1.26+00 | -5.93-003 | 1.95+000 | 4.39-003 | | | | | | | | |
| 2 | 9.0286-001 | 1.20+00 | -3.00-003 | 1.97+000 | 4.45-003 | | | | | | | | |
| 3 | 9.0286-001 | 1.20+00 | -2.98-003 | 1.97+000 | 4.45-003 | | | | | | | | |
| 4 | 9.0286-001 | 1.00+00* | -2.98-003 | 1.97+000 | 4.45-003 | | | | | | | | |
| 5 | 9.0286-001 | 1.00+00* | -2.98-003 | 1.97+000 | 4.45-003 | | | | | | | | |

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CORRELATION COEFFICIENTS

| | LAM1 | ALP1 |
|---|---|---|
| ALP1 | .634 | |
| BASE | .832 | .308 |

NPHI = 1.255-03

STANDARD DEVIATION OF FIT = SIGYY = 1.56210-01

| | LAMBDA | +- | STD. ERROR | PERCENT | | ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|---|---|---|---|---|---|
| | 4.4546-003 | +- | 2.852-04 | 6.403 | | 1.9694+000 | +- | 9.996-02 | 5.076 |
| | BASELINE | | | | | -2.9833-003 | +- | 1.469-02 | 492.316 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

FINAL ANALYSIS ASSUMING 2 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 4.3394-001 | 0.00 | -3.57-002 | 1.51+000 | 3.52-003 | 1.33+000 | 3.22-002 | | | | | | |
| 1 | 4.0468-001 | 1.06+00 | -5.97-002 | 1.43+000 | 3.16-003 | 1.61+000 | 3.69-002 | | | | | | |
| 2 | 4.0448-001 | 1.31+00 | -5.67-002 | 1.44+000 | 3.21-003 | 1.60+000 | 3.80-002 | | | | | | |
| 3 | 4.0447-001 | 1.15+00 | -5.69-002 | 1.44+000 | 3.21-003 | 1.61+000 | 3.81-002 | | | | | | |
| 4 | 4.0447-001 | 1.31+00 | -5.69-002 | 1.44+000 | 3.21-003 | 1.61+000 | 3.82-002 | | | | | | |
| 5 | 4.0447-001 | 1.15+00 | -5.69-002 | 1.44+000 | 3.21-003 | 1.61+000 | 3.82-002 | | | | | | |

CORRELATION COEFFICIENTS

| | LAM1 | LAM2 | ALP1 | ALP2 |
|---|---|---|---|---|
| LAM2 | .540 | | | |
| ALP1 | .843 | .629 | | |
| ALP2 | -.300 | .356 | -.307 | |
| BASE | .941 | .432 | .652 | -.256 |

NPHI = 2.506-02

STANDARD DEVIATION OF FIT = SIGYY = 1.07501-01

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 3.2080-003 | +- | 3.225-04 | 10.053 |
| 3.8187-002 | +- | 9.571-03 | 25.063 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 1.4442+000 | +- | 1.073-01 | 7.432 |
| 1.6060+000 | +- | 2.455-01 | 15.289 |
| -5.6861-002 | +- | 2.269-02 | 39.900 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

FINAL ANALYSIS ASSUMING 3 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3.8048-001 | 0.00 | -7.96-002 | 1.26+000 | 2.79-003 | 8.58-001 | 1.38-002 | 1.14+000 | 8.31-002 | | | | |
| 1 | 3.7961-001 | 8.73-01 | -9.29-002 | 1.18+000 | 2.59-003 | 9.08-001 | 1.19-002 | 1.19+000 | 8.27-002 | | | | |
| 2 | 3.7945-001 | 1.00+00* | -9.81-002 | 1.17+000 | 2.53-003 | 9.36-001 | 1.18-002 | 1.18+000 | 8.28-002 | | | | |
| 3 | 3.7945-001 | 1.03+00 | -9.80-002 | 1.17+000 | 2.53-003 | 9.36-001 | 1.18-002 | 1.18+000 | 8.28-002 | | | | |
| 4 | 3.7945-001 | 1.02+00 | -9.80-002 | 1.17+000 | 2.53-003 | 9.36-001 | 1.18-002 | 1.18+000 | 8.28-002 | | | | |
| 5 | 3.7945-001 | 1.03+00 | -9.80-002 | 1.17+000 | 2.53-003 | 9.36-001 | 1.18-002 | 1.18+000 | 8.28-002 | | | | |

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CORRELATION COEFFICIENTS

| | LAM1 | LAM2 | LAM3 | ALP1 | ALP2 | ALP3 |
|---|---|---|---|---|---|---|
| LAM2 | .875 | | | | | |
| LAM3 | .414 | .648 | | | | |
| ALP1 | .972 | .937 | .474 | | | |
| ALP2 | -.443 | -.053 | .521 | -.364 | | |
| ALP3 | -.530 | -.734 | -.525 | -.594 | -.293 | |
| BASE | .983 | .802 | .361 | .916 | -.476 | -.470 |

NPHI = 6.229-01

STANDARD DEVIATION OF FIT = SIGYY = 1.07231-01

| LAMBDA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 2.5331-003 | +- | 1.086-03 | 42.853 |
| 1.1342-002 | +- | 1.043-02 | 88.054 |
| 8.2792-002 | +- | 6.298-02 | 76.067 |
| BASELINE | | | |

| ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|
| 1.1687+000 | +- | 4.188-01 | 35.835 |
| 9.3600-001 | +- | 4.069-01 | 43.471 |
| 1.1778+000 | +- | 5.108-01 | 43.364 |
| -9.8013-002 | +- | 7.908-02 | 80.682 |

TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

FINAL ANALYSIS ASSUMING 4 COMPONENTS

| ITR | VARIANCE | DAMPING Q | BASELINE | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA | ALPHA | LAMBDA |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0 | 3.7974-001 | 0.00 | -1.34-001 | 8.77-001 | 1.95-003 | 7.31-001 | 6.06-003 | 6.44-001 | 1.81-002 | 1.08+000 | 9.30-002 | | |
| 1 | 3.7950-001 | 2.33-02 | -1.19-001 | 9.89-001 | 2.18-003 | 6.79-001 | 7.15-003 | 5.85-001 | 1.96-002 | 1.06+000 | 9.37-002 | | |
| 2 | 3.7933-001 | 4.50-02 | -1.06-001 | 1.10+000 | 2.39-003 | 7.06-001 | 9.00-003 | 4.64-001 | 2.32-002 | 1.04+000 | 9.53-002 | | |
| 3 | 3.7930-001 | 5.38-02 | -1.04-001 | 1.12+000 | 2.43-003 | 7.59-001 | 9.71-003 | 4.05-001 | 2.62-002 | 1.02+000 | 9.64-002 | | |
| 4 | 3.7929-001 | 1.40-01 | -1.03-001 | 1.13+000 | 2.45-003 | 7.92-001 | 1.00-002 | 3.80-001 | 2.88-002 | 1.00+000 | 9.69-002 | | |
| 5 | 3.7929-001 | 1.56-01 | -1.04-001 | 1.12+000 | 2.43-003 | 7.74-001 | 9.79-003 | 3.86-001 | 2.67-002 | 1.02+000 | 9.53-002 | | |
| 6 | 3.7928-001 | 1.70-01 | -1.03-001 | 1.12+000 | 2.44-003 | 8.00-001 | 1.00-002 | 3.70-001 | 2.91-002 | 1.01+000 | 9.59-002 | | |

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CORRELATION COEFFICIENTS

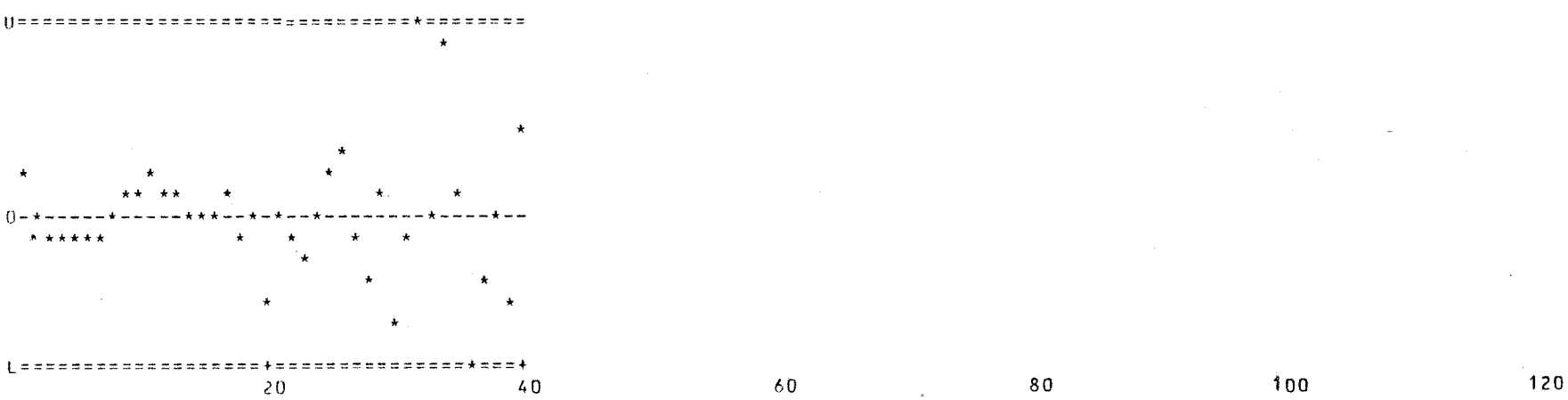
| | LAM1 | LAM2 | LAM3 | LAM4 | ALP1 | ALP2 | ALP3 | ALP4 |
|---|---|---|---|---|---|---|---|---|
| LAM2 | .934 | | | | | | | |
| LAM3 | .721 | .888 | | | | | | |
| LAM4 | .472 | .630 | .864 | | | | | |
| ALP1 | .991 | .967 | .772 | .514 | | | | |
| ALP2 | .744 | .926 | .974 | .761 | .804 | | | |
| ALP3 | -.696 | -.672 | -.319 | .119 | -.710 | -.493 | | |
| ALP4 | -.565 | -.739 | -.953 | -.951 | -.613 | -.871 | .032 | |
| BASE | .991 | .887 | .663 | .427 | .965 | .677 | -.669 | -.513 |

NPHI = 1.423+02

STANDARD DEVIATION OF FIT = SIGYY = 1.10612-01

| LAMBDA | +- | STD. ERROR | PERCENT | ALPHA | +- | STD. ERROR | PERCENT |
|---|---|---|---|---|---|---|---|
| 2.4409-003 | +- | 3.021-03 | 123.744 | 1.1240+000 | +- | 1.472+00 | 130.928 |
| 1.0045-002 | +- | 5.085-02 | 506.256 | 8.0003-001 | +- | 4.419+00 | 552.398 |
| 2.9143-002 | +- | 5.117-01 | 1755.702 | 3.7015-001 | +- | 3.245+00 | 876.769 |
| 9.5860-002 | +- | 2.760-01 | 287.871 | 1.0053+000 | +- | 4.683+00 | 465.867 |
| BASELINE | | | | -1.0350-001 | +- | 1.843-01 | 178.054 |

PLOT OF RESIDUALS MULTIPLIED BY SQUARE-ROOT OF WEIGHTS - FOR BEST SOLUTION. MAX RESIDUAL=U= 3.2-001 MIN RESIDUAL=L=-2.5-001



DISCRETE - VERSION 1H (APRIL 1976) TEST DATA SET 2 - WITH INCORRECT WEIGHTING AND MOST COMPREHENSIVE OUTPUT

BEST SOLUTION 2 COMPONENTS

++++++ NOTE - THE APPROX. PROBABILITY THAT THIS SOLUTION IS ACTUALLY BEST IS ONLY .581. LOOK AT SECOND BEST SOLUTION ALSO. ++++++

| ALPHA | +- STD ERR | PERCENT | LAMBDA | +- STD ERR | PERCENT | STARTING LAMBDA (FROM FIT TO TRANSFORMS - 1 TRIES) |
|---|---|---|---|---|---|---|
| 1.444+00 | +- 1.1-01 | 7.432 | 3.208-03 | +- 3.2-04 | 10.053 | 3.520-03 |
| 1.606+00 | +- 2.5-01 | 15.289 | 3.819-02 | +- 9.6-03 | 25.063 | 3.215-02 |
| -5.686-02 | +- 2.3-02 | 39.900 | 0.000 | +- 0.0 | .000 | |

ITERATIONS IN FIT = 5 STD. DEV. OF FIT = 1.0750-01 SIGNAL/NOISE RATIO OF FIT =
LAMBDA HELD BETWEEN 2.11-04 AND 4.16-01 NPHI = 2.51-02

| LAG | K = 1 | K = 2 | K = 3 | K = 4 | K = 5 | |
|---|---|---|---|---|---|---|
| PROB. RESIDUALS UNCORRELATED | .990 | .737 | .730 | .000 | .122 | WEIGHTED AVERAGE = * PUNC = .712 * |

SECOND BEST SOLUTION 3 COMPONENTS - A SIGNIFICANT POSSIBILITY ++++++++++++++++++++++++

| ALPHA | +- STD ERR | PERCENT | LAMBDA | +- STD ERR | PERCENT | STARTING LAMBDA (FROM FIT TO TRANSFORMS - 1 TRIES) |
|---|---|---|---|---|---|---|
| 1.169+00 | +- 4.2-01 | 35.835 | 2.533-03 | +- 1.1-03 | 42.853 | 2.793-03 |
| 9.360-01 | +- 4.1-01 | 43.471 | 1.184-02 | +- 1.0-02 | 88.054 | 1.383-02 |
| 1.173+00 | +- 5.1-01 | 43.364 | 8.279-02 | +- 6.3-02 | 76.067 | 8.313-02 |
| -9.801-02 | +- 7.9-02 | 80.682 | 0.000 | +- 0.0 | .000 | |

PNG(3/2) = .581 NPHI = 6.23-01 (UNCORRECTED PNG WOULD BE .349)
ITERATIONS IN FIT = 5 STD. DEV. OF FIT = 1.0723-01 SIGNAL/NOISE RATIO OF FIT =

| LAG | K = 1 | K = 2 | K = 3 | K = 4 | K = 5 | |
|---|---|---|---|---|---|---|
| PROB. RESIDUALS UNCORRELATED | .651 | .517 | .880 | .000 | .165 | WEIGHTED AVERAGE = * PUNC = .541 * |

THIRD BEST SOLUTION 4 COMPONENTS

| ALPHA | +- STD ERR | PERCENT | LAMBDA | +- STD ERR | PERCENT | STARTING LAMBDA (FROM FIT TO TRANSFORMS - 5 TRIES) |
|---|---|---|---|---|---|---|
| 1.124+00 | +- 1.5+00 | 130.928 | 2.441-03 | +- 3.0-03 | 123.744 | 1.948-03 (NO EXACT FIT TO THE TRANSFORMS FOUND) |
| 6.000-01 | +- 4.4+00 | 552.398 | 1.004-02 | +- 5.1-02 | 506.256 | 6.063-03 (NO EXACT FIT TO THE TRANSFORMS FOUND) |
| 3.702-01 | +- 3.2+00 | 876.769 | 2.914-02 | +- 5.1-01 | 1755.702 | 1.811-02 (NO EXACT FIT TO THE TRANSFORMS FOUND) |
| 1.005+00 | +- 4.7+00 | 465.867 | 9.586-02 | +- 2.8-01 | 287.871 | 9.301-02 (NO EXACT FIT TO THE TRANSFORMS FOUND) |
| -1.035-01 | +- 1.8-01 | 178.054 | 0.000 | +- 0.0 | .000 | |

PNG(4/2) = 1.000 NPHI = 1.42+02 (UNCORRECTED PNG WOULD BE .725)
ITERATIONS IN FIT = 6 STD. DEV. OF FIT = 1.1061-01 SIGNAL/NOISE RATIO OF FIT =

| LAG | K = 1 | K = 2 | K = 3 | K = 4 | K = 5 | |
|---|---|---|---|---|---|---|
| PROB. RESIDUALS UNCORRELATED | .644 | .514 | .883 | .000 | .169 | WEIGHTED AVERAGE = * PUNC = .538 * |

FOURTH BEST SOLUTION 1 COMPONENTS

| ALPHA | +- STD ERR | PERCENT | LAMBDA | +- STD ERR | PERCENT | STARTING LAMBDA (FROM FIT TO TRANSFORMS - 1 TRIES) |
|---|---|---|---|---|---|---|
| 1.969+00 | +- 1.0-01 | 5.076 | 4.455-03 | +- 2.9-04 | 6.403 | 5.239-03 |
| -2.983-03 | +- 1.5-02 | 492.316 | 0.000 | +- 0.0 | .000 | |

PNG(1/2) = 1.000 NPHI = 1.26-03 (UNCORRECTED PNG WOULD BE 1.000)
ITERATIONS IN FIT = 5 STD. DEV. OF FIT = 1.5621-01 SIGNAL/NOISE RATIO OF FIT =

| LAG | K = 1 | K = 2 | K = 3 | K = 4 | K = 5 | |
|---|---|---|---|---|---|---|
| PROB. RESIDUALS UNCORRELATED | .001 | .010 | .018 | .750 | .936 | WEIGHTED AVERAGE = * PUNC = .169 * |